IN THE CLAIMS

Amendments to the Claims:

Cancel claims 15-18.

Listing of claims:

Claims 1-14 and 19-21 (original).

Claims 15-18 (cancelled).

1. (Original) A method of forming shallow trench isolation regions comprising the steps of:

forming a plurality of active regions on a silicon substrate;

forming a shallow trench isolation region between a first and a second active region from among the plurality of active regions; and

selectively depositing silicon dioxide in the shallow trench isolation region without depositing the silicon dioxide on the first and second active regions.

2. (Original) The method according to claim 1, wherein the depositing step is performed by liquid phase deposition of the silicon dioxide.

3. (Original) The method according to claim 1, wherein the silicon substrate includes:

a silicon substrate;

a buried oxide layer on the silicon substrate; and

a silicon-on-insulator layer on the buried oxide layer.

4. (Original) The method according to claim 3, further comprising the step of:

forming a pad oxide layer on the silicon-on-insulator layer.

5. (Original) The method according to claim 4, wherein the pad oxide layer has a thickness of between approximately 2 - 10 nm.

6. (Original) The method according to claim 3, further comprising the step of forming a pad nitride layer.

7. (Original) The method according to claim 6, wherein the pad nitride layer has a thickness of between approximately 10 - 150 nm.

8. (Original) The method according to claim 1, further comprising the step of:

cleaning the shallow trench isolation region before performing the selective depositing step.

9. (Original) The method according to claim 8, wherein the step of cleaning reduces an amount of native oxide present along each exposed wall of the shallow trench isolation region.

10. (Original) The method according to claim 6, wherein the shallow trench isolation region extends through the pad nitride layer and the silicon-on-insulator layer to reach the buried oxide layer.

11. (Original) The method according to claim 10, wherein the selective depositing of silicon dioxide includes the step of:

depositing the silicon dioxide so that the silicon dioxide nucleates on and grows from the buried oxide layer.

12. (Original) The method according to claim 1, further comprising the steps of:

overfilling the shallow trench isolation region with an excess amount of silicon dioxide; and

planarizing the shallow trench isolation region by removing the excess amount.

13. (Original) The method according to claim 1, further comprising the step of:

processing the selectively deposited silicon dioxide to change its density to one substantially similar to that of thermally grown silicon dioxide.

14. (Original) The method according to claim 13, wherein the step of processing includes the step of annealing the selectively deposited silicon dioxide at a temperature between approximately 800-1200C.

15. (Cancelled) A semiconductor device forming area on a silicon-on-insulator substrate comprising:

a first active region and a second active region;

a shallow trench isolation region separating the first and second active regions; and

liquid-phase deposited silicon dioxide (LPD-SiO_2) filling the shallow trench isolation region.

16. (Cancelled) A semiconductor device forming area on a silicon-on-insulator substrate comprising:

a first active region and a second active region;

a shallow trench isolation region separating the first and second active regions; and

an electrically-insulative material filling the shallow trench isolation region, the electrically-insulative material comprised substantially of silicon dioxide and having a uniform etch rate when exposed to wet etching solution.

17. (Cancelled) The semiconductor device forming area of claim 16, wherein the wet etching solution is one of DHF and BHF.

18. (Cancelled) The semiconductor device forming area of claim 16, wherein the electrically-insulative material is liquid-phase deposited silicon dioxide (LPD-SiO_2).

19. (Original) A method of forming shallow trench isolation regions comprising the steps of:

forming a plurality of active regions on a silicon substrate;

forming a shallow trench isolation region between a first and a second active region from among the plurality of active regions; and

selectively depositing silicon dioxide in the shallow trench isolation region by liquid phase deposition of the silicon dioxide.

20. (Original) The method according to claim 19, wherein the step of depositing silicon dioxide avoids depositing silicon dioxide on the first and second active regions.

21. (Original) The method according to claim 20, wherein the silicon substrate includes:

a silicon substrate;

a buried oxide layer on the silicon substrate; and

a silicon-on-insulator layer on the buried oxide layer.

ELECTION

Applicants traverse the requirement for restriction and provisionally elect to prosecute claim Group I, consisting of claims 1-14 and 19-21, without traverse.